



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,910	08/08/2001	James R. Charlton	00,283	2863

32423 7590 05/26/2004

SPRINT COMMUNICATIONS COMPANY L.P.  
6391 SPRINT PARKWAY  
KSOPHT0101-Z2100  
OVERLAND PARK, KS 66251-2100

EXAMINER

CHEN, PO WEI

ART UNIT	PAPER NUMBER
----------	--------------

2676

12

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/924,910

Applicant(s)

CHARLTON ET AL.

Examiner

Po-Wei (Dennis) Chen

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

In response to an Amendment received on February 28, 2004. This action is non-final.

Claims 1-23 are pending in this application. Claims 1, 11 and 18 are independent claims.

The present title of the invention is "Graphic Display of Network Performance Information".

The Group Art Unit of the Examiner case is now 2676. Please use the proper Art Unit number to help us serve you better.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US 6,456,306; refer to as Chin herein) in view of Kosaka (US 20010056486).

Regarding claim 1, Chin discloses a method for displaying health status of network devices comprising:

A graphic process for substantially simultaneously displaying on a computer display device variations in a plurality of communication network functions (Fig. 8; while claim recites communication network functions, the term is broad enough to include the network functions such as routers and switches in a LAN network environment);

(a) providing access to a plurality of communication network functions, each network function having a data value within a range of data values (lines 1-53 of column 8 and lines 6-39

of column 10 and Table 2 and Fig. 1 and 8; each network function has a severity level corresponds to data value within a range from 0 to 10)

- (b) dividing a display area into a plurality of display divisions (Fig. 8);
- (c) assigning each display division to a respective network function (Fig. 8);
- (d) scaling a variable graphic quality of each display division to said range of data values of said network function associated with said display division (lines 1-53 of column 8 and Table 2);
- (e) accessing each of said network functions to retrieve a respective current data value (lines 1-53 of column 8 and lines 6-39 of column 10 and Table 2 and Fig. 1 and 8; each network function can be checked to retrieve a severity level corresponds to data value);
- (f) displaying for each display division a respective variation of said graphic quality which corresponds to said current data value of the network function associated with said display division (lines 1-53 of column 8 and lines 6-39 of column 10 and Table 2 and Fig. 1 and 8).

Chin does not disclose (e) without user interaction, periodically accessing each of said network functions. Kosaka discloses a network monitoring method utilizing the method (PP 0022, 0030 and 0086). It would have been obvious to one of ordinary skill in the art to substitute the method of accessing network device of Kosaka for the method of accessing network device of Chin because Kosaka teaches that by utilizing the method of accessing network device will provide accuracy when obtaining results of monitoring devices on a network such as one disclosed by Chin (PP 0015, Kosaka).

3. Regarding claims 2-3, Chin discloses a method for displaying health status of network devices comprising:

Scaling a variable graphic quality; (a) scaling a shade value to said range of data values; scaling a variable graphic quality; (a) scaling a range of colors to said range of data values (Table 2).

4. Regarding claims 6 and 7, Chin discloses a method for displaying health status of network devices comprising:

(a) linking at least one of said display divisions to additional information associated with said network function associated therewith; (b) displaying said additional information in response to graphic selection of said display division (lines 26-54 of column 10 and Fig. 8).

(a) linking at least one of said display divisions to graphically encoded information associated with said network function associated therewith; (b) displaying said graphically encoded information in response to graphic selection of said display division (lines 26-54 of column 8 and Fig. 8).

5. Regarding claim 9, Chin discloses a method for displaying health status of network devices comprising:

Variable graphic quality varies in discrete steps; (a) displaying for each display division a respective step variation of said graphic quality which corresponds to said current data value of the network function associated with said display division (lines 1-53 of column 8 and Fig. 8; each severity level varies in discrete steps and the graphic quality such as colors varies accordingly for each network device displaying).

6. Regarding claim 10, Chin discloses a method for displaying health status of network devices comprising:

(a) displaying human readable indicia on at least one of said display divisions to thereby identify a network function associated with said one display division (Fig. 8).

Regarding claim 11, as statements presented, above, with respect to claims 1 and 3 are incorporated herein. Also, it is noted that Planas disclose (b) dividing a rectangular display area into a plurality of display divisions (see lines 9-13 of column 6 and lines 26-28 of column 19 and Fig. 2d);

7. Regarding claims 13, 14 and 16, as statements presented above, with respect to claims 6, 7 and 10 are incorporated herein.

8. Claims 4, 5, 8, 12, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US 6,456,306; refer to as Chin herein) and Kosaka (US 20010056486) as applied to claims 1 and 11 above, and further in view of Baker et al. (US 5,581,797; refer to as Baker herein).

9. Regarding claim 4, the combination of Chin and Kosaka does not disclose scaling a variable graphic quality; (a) scaling a size of a display division to said range of data values. Baker teaches a method for displaying hierarchical information of a large software system utilizing the method (see lines 51-55 of column 5). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Baker, to scale the display division to represent data values in a data displaying system to provide user a greater understanding of the system through visualization (lines 12-16 of abstract, Baker). Also, Baker discloses that the visualization method could be used other large systems (lines 18-20 of column 8).

10. Regarding claim 5, Chin discloses a method for displaying health status of network devices comprising:

At least one of said network functions includes a data set of a plurality of data members, each data member having a corresponding data member value within said range of data values (lines 1-53 of column 8 and lines 26-39 of column 10 and Table 2 and Fig. 8; network function such as router has multiple individual routers with corresponding severity value indicating status);

(c) periodically accessing said at least one of said network functions to retrieve a respective current data member value of each of said plurality of data member (lines 1-53 of column 8 and lines 6-39 of column 10 and Table 2 and Fig. 1 and 8; each network function and its individual member can be checked to retrieve a severity level corresponds to data value).

Chin does not disclose periodically accessing said at least one of said network functions. However, this is known in the art taught by Kosaka, statements presented above, with respect to claim 1 are incorporated herein.

The combination of Chin and Kosaka does not disclose (a) dividing said display division associated with said at least one of said functions into a plurality of display subdivisions equal to said plurality of data members of said data set; (b) assigning each of said display subdivisions to a respective one of said plurality of data members; (d) displaying for each display subdivision a respective variation of said graphic quality which corresponds to a current data member value of the data member associated with said display subdivision. Baker teaches a method for displaying hierarchical information of a large software system utilizing the function (lines 30-55 of column 6 and Fig. 5). It would have been obvious to one of ordinary skill in the art at the time

Art Unit: 2676

of invention to utilize the teaching of Baker to provide user an easy way to make visual comparisons between different data values in a system (lines 54-55 of column 6, Baker). Also, Baker discloses that the visualization method could be used other large systems (lines 18-20 of column 8).

11. Regarding claim 8, Chin discloses a method for displaying health status of network devices comprising:

(a) linking at least one of said display divisions to additional information associated with said network function associated therewith (lines 26-54 of column 10 and Fig. 8).

The combination of Chin and Kosaka does not disclose (b) displaying said additional information in response to placement of a graphic cursor within said display division. Baker teaches a method for displaying hierarchical information of a large software system that utilizing the method (lines 57-61 of column 6 and Fig. 1 and 4). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Baker, to display additional information in response to placement of a graphic cursor in a data displaying system to provide user an easy way for greater understanding of the system through visualization (lines 12-16 of abstract, Baker). Also, Baker discloses that the visualization method could be used other large systems (lines 18-20 of column 8).

12. Regarding claim 12, as statements presented above, with respect to claim 3 and 5 are incorporated herein.

13. Regarding claim 15, as statements presented above, with respect to claim 8 are incorporated herein.



Art Unit: 2676

14. Regarding claim 17, as statements presented above, with respect to claim 4 are incorporated herein.

Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin et al. (US 6,456,306; refer to as Chin herein) in view of Kosaka (US 20010056486) and Baker et al. (US 5,581,797; refer to as Baker herein).

15. Regarding claim 18, as statements presented above, with respect to claims 1, 3 and 5 are incorporated herein.

16. Regarding claim 19, as statements presented above, with respect to claims 5 and 6 are incorporated herein. Also, it is noted that Baker further disclose additional information such as shading corresponding to its data values for each subdivision (Fig. 5).

17. Regarding claims 20-21, as statements presented above, with respect to claims 7-8 are incorporated herein.

18. Regarding claims 22-23, as statements presented above, with respect to claim 4 are incorporated herein. Also see lines 30-55 of column 6 and Fig. 5 of Baker.

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jancake et al. (US 5,764,913) disclose a network status monitoring system utilizing traffic light as status indicators.

Nagai et al. (US 5,483,631) disclose a network management/display system utilizing colors to indicate status.

*Inquiry*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Po-Wei (Dennis) Chen whose telephone number is (703) 305-8365. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C Bella can be reached on (703) 308-6829. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Po-Wei (Dennis) Chen  
Examiner  
Art Unit 2676

Po-Wei (Dennis) Chen  
May 21, 2004



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600